DOCUMENT RESUME

TM 031 499

ED 443 854

AUTHOR Burnaford, Gail; Hilsabeck, Alison

TITLE The Master's Project: Negotiating Identities as Teacher Researchers.

PUB DATE 2000-04-20
NOTE 45p.
PUB TYPE Reports - Descriptive (141) -- Reports - Evaluative (142)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Educational Research; Higher Education; *Masters Degrees; Masters Programs; Methods Courses; *Research Methodology; Teacher Education; *Teacher Researchers
IDENTIFIERS Northwestern University IL

ABSTRACT

This paper describes the guided inquiry process by which graduate students in the Master of Science in Education Program at Northwestern University produce a formal "master's project." This project is a piece of individual or group research completed by students in the teacher preparation program. The preparation to do the inquiry runs parallel to the preparation to teach. This description is the beginning of an evaluation of the university's approach to training teacher researchers. Students use four models to develop research questions for their projects: (1) participation in university-generated research; (2) school-site generated research; (3) mentor teacher/student research; and (4) personal, individualized professional development research. The research groups established as part of the research methods course help the students develop communities of practice, as does dialogue among researchers in schools and universities. One of the issues that must be investigated in relation to the master's project is that of identifying and then fostering the skills and attitudes practitioners need. Another issue in need of exploration is that of promoting transfer, increasing the likelihood that graduates will retain their commitment to rigorous inquiry. The self-study efforts so far have helped the university begin to answer questions about its master's project for prospective teachers. (Contains 28 references.) (SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 443 854

The Master's Project:

Negotiating Identities as Teacher Researchers

G. Burnaford

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Gail Burnaford
Alison Hilsabeck
Northwestern University
2115 N. Campus Drive
Evanston, IL 60208
g-burnaford@nwu.edu
hilsabec@nwu.edu

TM031499

BEST COPY AVAILABLE

Introduction

Teacher education programs are increasingly interested in helping students develop inquiry skills and encouraging these students to continue using and refining these skills as they engage in the profession of teaching. Preservice programs that have incorporated a practitioner research component are growing in number in the United States (Poetter, Badiali, and Hammond, 1999, Gore and Zeichner, 1995, Ross, 1987). Teacher educators view action research as a tool for reflection that moves beyond keeping a journal - long a practice for student teachers - into the realm of impacting practice through systematic data collection and interpretation procedures.

Research suggests that, as preservice teachers become more engaged in their field work during a teacher preparation program, they become more and more focused on "what works" in the immediate situation and less critically reflective in the particular ways that their university coursework encourages (Goodman, 1986, Zeichner, 1981). The immediate 'need to know' results in the beginning teachers adopting the attitudes and methods of their cooperating/mentor teachers without genuine analysis and assessment. An practitioner research approach provides beginning teachers with the tools to systematically rethink their teaching *while* they are teaching. They can then base curricular decisions on real data rather than the lore of teaching they encounter when they enter schools as student teachers.

Within the School of Education and Social Policy at Northwestern University, the teaching and the research activities of our faculty are guided by the notion that inquiry and reflection are critical tools for developing understandings and actions that will

promote positive educational change. The conceptual framework within which we engage in teacher education at Northwestern University, for example states:

> *We design courses of study, learning, and field experiences that serve to apprentice those who are and will be teachers and/or administrators ...to value and incorporate systematic inquiry and reflection into their practice and to aim to act as agents of change in their professional lives. We prepare candidates to engage in research on teaching and learning, with the idea that they will, as professionals, be teacher researchers and teacher leaders* (SESP Teacher education conceptual framework, 1999, p. 2).

Although notions of inquiry and reflection are evident across the teacher education curriculum, they are perhaps most readily apparent in the guided inquiry process whereby graduate students in the Master of Science in Education Program produce a formal "master's project." The master's project is a piece of individual or group research completed by students across the period of enrollment in the teacher preparation program, usually twelve months. Students, therefore, begin working on the project just as they are managing methods courses and field observations and finish as they prepare to take up teaching jobs. This means that the preparation to do inquiry unfolds parallel to the preparation to teach.

The project begins with question development and the writing of a formal proposal during the fall term. This is followed by a research/inquiry course combined with data collection and analysis during either the winter or spring term. Finally, students enroll in a capstone course during their final term in which they share the ideas and findings that have arisen through their research experiences. Students are not restricted to any particular methodological approach in the completion of their projects. Indeed, during the course of their training, students are encouraged to experiment with different

methodologies and may also be exposed to various approaches used by university faculty and practitioner researchers.

The master's project process is designed to accomplish several objectives. First, it allows the student to pursue and attempt to answer a question about which they have genuine doubt, interest and concern. Secondly, it fosters synthesis of ideas across course and field boundaries, ideally helping students bridge the gap between theory and practice through active pursuit of answers to real problems they have observed. Finally, it serves as an active learning venue for students to try out different research methods and paradigms in the context of a developing professional identity.

While we are committed to helping candidates become teacher researchers, we recognize that implementing that ideal involves grappling with uncertainties, constraints, and conflicting ideas about the nature and meaning of teacher research and of teacher education itself. We are not alone in worrying about how to promote teacher research. Many schools of education are currently puzzled about what to do with teacher research. It is sometimes the basis for a course in a research department, and it is sometimes a course in teacher education. More often than not, if a course actually exists, it is probably not a requirement for a degree and it may be an extension course offered to schools as staff development. Teacher education students are caught in the middle of the debate about what to do with this brand of learning (Anderson and Herr, 1999). This is particularly true when we are talking about preservice teachers who are learning what it means to be a teacher and experimenting with being researchers at the same time.

Some who have explored the changing curriculum of teacher education in the past ten years have called for a more realistic kind of teacher preparation "in which the

emphasis shifts toward inquiry-oriented activities, interaction amongst learners and the development of reflective skills" (Korthagen and Kessels, 1999, p. 7). There is a logical link in these elements to teacher research. Still, actually finding the most meaningful ways to integrate teacher research into preservice teacher education remains a challenge.

We view self-study as a means of consciously negotiating these issues by attempting to understand what we currently do, to refine that process, and to understand it in the larger framework of teacher education. Zeichner sets a high standard for such self-study. "The self-study genre of research in teacher education is the one clear example of where research has had an important influence on practice in teacher education. While there is some self-study research where teacher educators do not genuinely problematize their practice and interrogate it in a deep way, there is a lot of work where teacher educators have courageously exposed and then confronted the shortcomings in their work and the gaps between their rhetoric and the reality of their practice" (Zeichner, 1999, p. 12). We attempt to interrogate our own practice "in a deep way," trying to understand both strengths and weaknesses within our program and to place those understandings in a larger view of teacher education within research universities.

As we examine our approach to training teacher researchers through the master's project process, we bring a number of questions, some conceptual and some more instrumental. These questions derive from our desire to explore how preservice teachers in our program come to understand the nature of research and their identity as researchers as they work to shape a master's project. We come to these questions as university administrators, teachers, and researchers working daily with preservice teachers. We have used focus group data, artifact analysis, and participant observation as initial means

of exploring these questions. We consciously attempted to engage our graduate students in exploring these issues with us by making them aware of our own research agenda. We did this in the focus group process and in research group meetings we instituted by asking them at various points to reflect upon and provide us with feedback on the inquiry process as they found it. Although we regard our self-study of the master's project process as in its early stages, we report here on four interrelated topics and then consider future directions for research:

- ✓ Evolution of the research question: Negotiations across time and relationships
  - •Where do students' research questions come from and who "owns" them?
- ✓ Communities of practice: Finding partners and doing research
  - •How can students support one another as they do research?
  - •What is the role of school/university collaboration in students' research?
  - •Do students experience the university and school communities as overlapping or separate?
- ✓ Preparing teachers to do research: Skills and attitudes for practitioners
  - •Do student teachers see the connection between research skills and teaching skills?
  - •Do they perceive the learning of discreet research methods as beneficial?
  - •Are some research methods more useful than others in helping prospective teachers integrate teaching and research?
- ✓ The problem of transfer: Increasing the likelihood that graduates will sustain their commitment to rigorous inquiry.
  - •How might we convey to students the instrumental value of teacher research for teaching practice?
  - •How can we help students develop not only working tools but a sense of identity as teacher researchers?
  - •What do they see as barriers to teacher research in schools and how might we help them envision ways to overcome those barriers?

Evolution of the Research Question: Negotiations across Time and Relationships

As for research questions preceding the actual study, I would simply say that research questions often are the result of the observational process rather than their predecessor. This is not to say that research questions could not be raised at the outset of a qualitative research process; it is to say that in doing research of this kind, you

might not know what the questions are until you are well into the research. (Eisner, 1999, P. 20)

Amy: *...I was thinking about what really helped me to focus or delve deeper into my question, and I think it was difficult when I sat down to write my project plan...it was amorphous...It wasn't until the Data Display course when I was forced to sit down and say, 'How did they really do in that study? What constituted that study and how does that relate to my question?' That really helped me to look at how I could collect data. What's a viable way? What is teacher-based research? What does that mean? It raised all these other questions that maybe I hadn't really associated with my question. Wow, is this OK?*

It is by no means an easy task to really do research as a practicing teacher. The students in our master's program are addressing the issue of 'What is research?' at the same time that they are asked to consider, 'What is my research question?' Because of that, the question that drives preservice teachers' research is both complex and confusing. For these students, the articulation of the research question is often a process of negotiation – with field site mentors, faculty advisors, existing research initiatives, and personal interest. It is both a pragmatic and an intellectual challenge and is sometimes hampered by circumstance, the sense of time urgency, and limited expertise.

But in the end, the most interesting factor that seems to underlie all of these challenges is the notion of ownership. The question of who owns the research is often the one requiring the most negotiation and the most tactful and realistic appraisal. Student teacher Jan Swenson: *Being a student teacher in someone else's classroom, and in the company of a very experienced teacher, how much could I admit and ask about substance and style when I was so unsure of myself? How can we genuinely ask and answer our*

own questions given the politics and notion of expertise involved in schools? (Threatt, Buchanan, Morgan, Strieb, Sugerman, Swenson, Teel, and Tomlinson, yr., p. 239). As we explored this dilemma in the literature and through the focus and research groups sessions we conducted, we discovered that there are probably four models for developing research questions that can in fact be addressed by preservice teachers while they are still learning how to be teachers. These four models are: 1) University-generated research, 2) School-site generated research, 3) Mentor teacher/student teacher research, 4) Personal, individualized professional development research. Each of these models suggests a different conception of ownership of the research.

University-Generated Research

Some students in the master's program are participating in research that is ongoing and is administered by university research faculty. These students indicate an interest in the subjects that the faculty are investigating; they then are encouraged to explore what the research teams are doing and to find a way to assist with that research while, simultaneously, creating a research question and project for themselves.

The advantage of this structure is that students have doctoral students and faculty members to advise them and assist them with their work. They also may have data already collected in the project that they can access and analyze. They are introduced to a process for doing research that is already in place and they learn about the procedures for analysis collaboratively.

In our university, the master's student may select a portion of the study to investigate more thoroughly for her/his individual research project. The design challenge is one of narrowing the focus, establishing limited data, and generating learning that is

useful as a practitioner who will not be continuing the project with the other, more senior researchers. Time and timing are critical; when a novice researcher enters an existing project and is anticipating working in the near future as a full-time classroom teacher rather than a full-time researcher, the amount of time and the nature of the timeline for doing research is not necessarily consistent with the funded research goals established by faculty.

One student in our program is engaged in this process now. She is working with a funded project, designing curriculum for use in middle school science classrooms. For her, as a novice researcher and graduate student, designing curriculum is a new experience in itself, one that she will be engaged in throughout her career. At the same time, she is trying to formulate a manageable research question. Her interest has evolved into a question about the very process of curriculum design, rather than any specifics related to the curriculum products. Kylene's question is: *How do curriculum developers address the design challenges they face when creating an inquiry-based, project-based science curriculum?* She has assumed ownership of her project by looking at the design process that she and her colleagues are focused upon. Her question is highly consistent with the goals of the curriculum project, but yet it has some personal, investing relevance to her future goal of becoming a classroom teacher.

We have found that it is this connection – of existing research to the practical goals of future teachers - that is crucial if preservice teacher researchers are to successfully work within the university research paradigm. Ownership in this instance is twofold. The project's origins rest in the faculty project and the general focus of the research has been determined by others. However, this negotiation from inside a larger

project supports students' views of research as something beyond the personal and capable of effecting whole school change.

School-Site Generated Research

Amy: *Over the summer, they have this curriculum project that focuses on the algebra curriculum, so they just want to have another perspective. Some of them have been really supportive and welcoming...some teachers have let me take their students out of their classrooms and interview them, and all these teachers really see their time with students as valuable, so I really feel so honored that they're giving me the time to do that. I think the teachers who have been so welcoming are themselves really interested in the students being successful, whatever that means...they're interested in change, if necessary. They're all reflective teachers themselves, and they welcome others who want to be sort of reflective and inquiring.*

Amy's experience, though far from typical, is illustrative of a framework for preservice teacher research in which the question and the focus for the research stems from a larger school initiative and the interest of the department in which the preservice teacher completed her field work. In this model, site teachers are presumably already working toward that focus and preservice teachers learn from collaborating with those grounded in the reality of the school and working on a common challenge.

Amy's question concerns the efficacy of an extended mathematics program for low achieving students. She is examining how the double period approach, which has been implemented by the mathematics department, is working across classrooms, and what strategies teachers are actually employing during this extended period structure.

As part of a national initiative, Evanston Township High School, in Evanston, IL has been focusing on minority achievement in all academic areas. Because our university has been affiliated with ETHS through our teacher education program, we introduced the master's project concept to the department chairs at the high school and acquainted them with the parameters of the project that our graduate preservice candidates complete. Northwestern student teachers who were working at ETHS were introduced to the idea of finding research questions that connected in some way to the ETHS goal of enhancing minority achievement. While they were not in any way required to follow that path, all who completed fieldwork at the high school this year have designed projects that in some way relate to that broad school goal.

The challenge here is that the teachers at this high school are not necessarily conscious 'teacher researchers', nor have many of them recently studied the methods of data collection and interpretation in any formal coursework. They have experienced research in a very different vein, as those who have offered their classrooms to external researchers who then, in the teachers' view, do not share their results or conclusions and do not invite participation by classroom teachers. Amy: *Something I see in the math department – a frustration – is that they have research going on. But they are frustrated because data is collected, they don't see results, they don't know why the data is collected or why we do this research. What's the point of it all? So there's this frustration – there is someone somewhere doing research; they themselves collect data about how students do. They share it with each other and then they're like, 'Why are we doing this? What's the point?'*

Early on, Amy saw the necessity of negotiating across these interests in order to do her research. She recognized that if she had gone into the field setting with her own research agenda – separate from any interests on the part of the faculty – that the work would have been difficult, if not impossible. She acknowledged the difference between the type of research with which teachers were familiar and the teacher-based research that she was attempting to do. From Amy's experience, we learned much about the need for clarifying the goals, purposes, and audiences for preservice teacher research in collaboration with school partners.

This design stems from the willingness, if not the active participation, of experienced teachers in schools (Burbank, 1999, Poetter, Badiali, and Hammond, 1999). Ownership, in this instance, lies in the negotiation between the broad goals of a department, school, or district, and the individual interests and capabilities of a teacher education candidate. Such research, generated by these candidates who are only temporarily at a school site, may not appear to appreciably affect the work of faculty at those sites, nor is collaboration with site faculty in the development of a product necessary. For Amy, the process is working because the teachers at her site have become engaged in her question; they have a vested interest in the results and they feel that they will see those results as Amy completes her research project and presents her reflections to them.

Who owns this question? Amy? The school district? The mathematics department? In this instance, perhaps the answer is all three. What has been a focus of our study around this issue is the question of how Amy negotiates her own self-interest in learning the strategies appropriate to assist low achieving students to learn mathematics

with the initiative of the mathematics department and the district as a whole. The master's project requirement of the program necessitates an action research stance as Amy is processing her field experience.

Mentor Teacher/Student Teacher Research

At Highland Park High School, the experienced teachers are organized into supportive action research labs, or ARLs. A portion of the faculty are familiar with the methods for doing research on their own practice. They have learned to be collaborative supporters of each other. They share data from their classrooms on common research topics; they present at conferences and they publish their work in teacher journals. Student teachers from our university are being invited into this arena, and, if there is some common interest, the student teacher's research question may stem from the focus of the ARL. Inviting preservice teachers to the table during experienced teacher research team sessions may open new options for the team (Cochran-Smith, Garfield, and Greenberger, 1992). Preservice teachers may also bring a current knowledge of the research process to the group because they are learning about it in their university classes. But they lack the real context for applying the methods that their experienced counterparts can provide.

We are beginning to explore how issues of ownership affect our students' master's research in such an arena. This year, Rachel, a future English teacher, completed her field experience work at Highland Park. Rachel: *I've been really lucky at HPHS, which is an action research laboratory. From the beginning, I met with all the groups – eight groups – and I didn't really feel like I loved any of the projects that were going on, so I started my own, so to speak. So there are four of us; two are teachers and*

they have more or less treated us in the same way. They've given us full run of the freshman classes, so they've been extremely supportive.

She continues: *My project has been the collaboration with teachers – using teachers as researchers. My project grew out of a discussion with my mentor teacher. It was a conversation about a book, Reviving Ophelia, and another conversation with that same teacher about starting a girls' book club.*

What occurred with this preservice teacher introduced us to yet another model for the evolution of a meaningful research question for our students. Initially, we believed that the ARL structure and organization at this high school would introduce students to a collaborative design within which they could conduct their master's research. We are still hopeful that this will occur with future students. But, in this case, Rachel essentially found mentors, not ARL teams per se, who were interested in the issues that she came into the program with. Because there was an existing structure and acceptance of collaborative research at this school, the design of a project with university students and three other teachers was both possible and manageable. Ownership in this instance is shared among the mentor teachers involved and the preservice students. They envision a collaborative book club process followed by the writing and possible publication of their findings – an expectation that is supported by the high school administration.

Personal Professional Development as Impetus for Teacher Research

Marian: *I wanted something to research I could use right away as a first year teacher.*

Even though we have been working on the grounding of our master's students' projects in real-school experiences, we have also been exploring ways to invite personal

and individual reflection that may lead to a research question. Although no research is done in a vacuum, much teacher research in the literature is personal and finite – limited to one teacher's experience with his/her students. Lampert raises a warning about the challenges of "inserting the self" into research, as well as the issues inherent in "presenting problems of a practice from inside that practice" (2000, p. 88-89). Even so, preservice teachers are often focused on research topics that are useful and applicable to them as they anticipate their future careers, as Marian's comment indicates.

Questions, in this instance, stem from a need or a problem that students recognize as they prepare to assume their roles in the classrooms. They may also emerge from autobiographical reflections on school experiences and patterns of learning. Joe: *I lapse into thinking the way I've always thought about things…like I run on the assumption that an A matters. If you give them an opportunity to get an A, kids will want an A. Then there are really bright students who look at you and say, 'I'm shootin' for a C this week.' And they're dead serious…like that's all they want. Here I've planned this whole lesson so that I could keep that bright kid busy for a week to get an A and now he tells me that he's shooting for a C! I constantly start from my frame of reference…and then I keep saying, my experiences don't really apply. Then I try and figure out who this kid is.*

Is this research? Can we support this kind of self analysis that comes from examining one's own assumptions and values in the new and different contexts in which student teachers find themselves? If we believe that this is constructive research for teachers, then we are faced with the challenge of helping such preservice teacher researchers shape questions that involve means of data collection and analysis that both further their own learning and advance the learning of their k-12 students. Joe's

research project has evolved in and through his experiences as a student himself and as a practicing teacher in a challenging class. Joe: *My question came from my teaching experiences in a mixed ability classroom. I found it relatively easy to teach the high level kids because I understood them...I understood how they thought, how they worked, what they were motivated by...grades, wanting to learn. I had a really hard time with the kids at the bottom of the class...reflecting on my own past, I realized that when I wasn't good at something, I didn't want to do it, and when I was frustrated by something, I went in a different direction. I started wondering how you get those kids to perform...can you do anything as a teacher?* Ownership in this instance resides in the preservice teacher. He has determined a need and a series of strategies for addressing that need through his master's research project. His question, though useful for others, is grounded in his own work and his own learning.

Another preservice teacher notes the dilemmas of personal development practitioner research that emerged from a tutoring relationship. Susan: *I'm looking at the dynamic between white teachers and black students, and I started with this relationship. Then, when I started going into the literature, I was really surprised; I felt like I had a relationship with her, but the literature was very discouraging about what goes on between white teachers and black students. I don't think my question changed, but the fact that the academic literature was so disheartening about this really did push me to look for other sources. I started going into the classroom, looking at other authors, like teachers instead of professors, and I felt like I was getting more support.* Because this student intends to pursue a career in urban teaching, her question was very much grounded in her concerns and needs.

This is a viable starting place for preservice teacher research. It is also a helpful venue for teachers like Joe and Susan to recognize the connection between research and practice. They have begun to recognize the application of research methods to practice through this process in the master's project. Joe: *Teachers always do have a question...that is, most good teachers. You come into a class and things flop and teachers ask, 'Whoa...why did that happen?' Almost all the good teachers do that. That kind of research is similar to what we are doing, but we're trying to do it in a slightly more structured format.*

Communities of Practice: Finding Partners and Doing Research

This year, the students were organized into Research Groups as part of the research methods course called Data Display and Interpretation. During the Research Group meetings, we were aware that we were modeling a way of doing research as a community that we hoped would continue. Some of the impetus for this practice comes from Stringer's work on community-based action research (1999). Stringer's text was one of three used in the Data Display class and offered a new perspective to most students on the nature of the process – and the ultimate goal – of practitioner research.

These Research Groups met weekly as part of the class in order to help each other design their projects, give feedback on data collected, and provide support. Rachel: *I've done research before, so for me, it was the community of practice. The discussion. I liked having people to talk about it with. I liked having a reliable, consistent source. I knew I was going to have an opportunity to discuss the project, that every week I was going to talk about it, and actually, I wouldn't mind having that through the whole project. You know, where we keep our groups going, so to speak, until we're done.*

It seems that this notion of having a research community, which we designed into the program as Research Groups this year, was a powerful aspect of students' learning. They had not conceived of research involving discussion, feedback, and collaboration with those who were not directly working with your question, your site, your informants. Amy: *It's through that fresh set of eyes...other teachers, but they're not at your site, they're not in your discipline. They're able to give you some insight that, since you're so embedded in your question, you don't see...an outsider's perspective.*

They had not envisioned that as an element of their practice as researchers – or as teachers. Rachel: *I guess it's like you're not out there alone – this lone researcher taking on the world. It's a forum, a discussion with people who get the lingo, who understand the process. On one of our class nights, my research group helped me reformat a questionnaire that I was struggling with – and I needed that and I know I'm going to need it again. I'm going to have to go out and get it.*

This aspect of the research process is especially crucial for beginning teachers who do not yet have the means to form collaboration in a site. It provides a model for professional development in the future that may have an impact on relationships they build as new teachers. The use of these Research Groups raised issues with students and with us as instructors about how such communities of practice appear in schools.

When we asked the students how and whether they have experienced such communities in their field sites, their reactions were mixed. They noted that there were selected faculty in schools who seemed to be interested in reflection and conversation and others who were definitely not so invested. They consistently expressed the view that teachers were most notably interested in projects and discussions that directly affected

them at that time with a given set of students. If the topic was not directly involving the types of students or the content field they were engaged in, they often did not appear to be interested.

Joyce: *At work it's been lonely. People think it's a part of your...they just say, 'Oh you have to do that to graduate or something.' It's really frustrating. You start sharing something and they go like, 'Yea, yea, yea.' It goes in one ear and out the other. I feel like having the community here, it's really made a difference for me. Just to feel like, I'm doing something that's going to make a difference! I think the community gives you a sense that someone else cares about your project – that you can trust them with it, knowing that when they read it, they're not going to take it lightly, or that this is just something you need to do so you can graduate.* Further discussion within and across communities of practice regarding the long term and short term benefits of reflective inquiry must continue. Universities may play a role in assisting teachers with finding collaboration in their sites and across schools.

Communities of Practice: Dialogue among Researchers in Schools and Universities

Despite the isolated examples of instances where teacher research and academic research have crossed the borders that divide them, they have essentially been irrelevant to each other. For the most part, educational researchers ignore teachers and teachers ignore them right back (Zeichner, 1995).

Most students we interviewed were puzzled when we asked them to envision what a collaboration among researchers at the university and those at a school site might look like. Some students did note that there was interest in collaboration at an institutional

level and that some members of the faculty or administration may be interested in participating in a research community of practice because they wanted to work with the university.

In other instances, the students recognized their own roles as bridges across communities – in the school and in the university. Amy: *I sort of see them (communities) as separate. I go to my site and I do my work there and then I come here. Where's the link between those two communities of practice? I'm sort of the link between these two spheres.* As we explore the meaning and benefits of preservice teacher research, we see the need to investigate more fully how communities of practice involving these teacher candidates might work. What is the nature of discussion and communication across these communities? What is the nature of discourse among academic researchers, experienced teachers and preservice candidates? This is an ongoing interest of ours and one which has implications for our master's project research.

Not long ago, Gail Burnaford, one of the authors of this paper, had a conversation with Joe Senese, Assistant Principal at Highland Park High School about this notion of collaboration across institutions. *I have had conversations at conferences about forming a partnership with a university, and, generally, others tell me, 'Don't do it.' Universities make it their project, their agenda, and that's not what we're about here.* Since then, we have been exploring exactly what Joe meant, and what can be done about it. David Coulter (1999) calls for 'dialogic research' across communities of researchers such as those described here. Burbules and Rice call this approach, "dialogue across differences" (1991, p. 393). They assert that while the aim is meaningful collaboration, there is also

the danger that such attempts at dialogue can actually lead to *maintaining* differences rather than trying to eliminate them (p. 409).

This form of research that is sometimes termed 'collaborative action research' (Oja and Pine, 1987) or 'collaborative inquiry' (Catelli, 1995), takes place between university and school-based researchers. There are some challenges that need to be addressed if university researchers, teacher researchers, and preservice teachers are to work together. University researchers consider their expertise to be research; teacher researchers consider their expertise to be teaching. Teacher researchers do not necessarily fit into any of the traditional paradigms for doing research. They are, in essence, creating a new paradigm of research. University researchers have general working principles, within their paradigms for research, for validity and reliability of their methods and results. Teacher researchers have different standards for success that pertain to practical results and direct application.

Coulter notes that "university researchers are rewarded for their contributions to scholarly dialogue, not practical discourse" (1999, p.11). University researchers perceive that teacher researchers have a general lack of experience with research methodology; teacher researchers have a general perception that university researchers lack classroom experience. They present at conferences, get published, receive tenure and promotion on the basis of the research knowledge they produce. Teacher researchers are rewarded in their classrooms – by increased expertise as teachers, by increased student learning and engagement, and by meaningful conversation with colleagues.

Teachers often tell stories, call upon their experiences with specific children, and look to past resources and practices for ideas and insights. Their audience for teacher

research is usually other teachers and themselves. University researchers speak and write in scholarly terms with academic audiences in mind. Teacher researchers are often limited in technology skills and resources and rely on what is available at school sites. University researchers utilize more technology to conduct their research and to communicate with colleagues.

Collaboration must be practiced and learned over time; thus, group process needs to be studied and time allotted to it, before, during, and after the actual research process. Neither university researchers nor teacher researchers are necessarily accustomed to taking the time to actively learn about how to collaborate, even though both may see the need to teach students to do so. University researchers see teacher research as a means of professional development, but not necessarily as a means of knowledge production. Teacher researchers see university research as a means of professional conversation, but not necessarily as a means to directly improve learning and teaching in schools.

School-based work can make university teaching more relevant and grounded. University teachers have much to learn from their k-12 counterparts who know something about how to engage students. Collaborative action research brings both communities together to address the political dimensions of school change and the uses of research. The recent work of the M-Class Teams, a national teacher research network of English and Social Studies teachers and university faculty provide a model for analysis (1999). In this design, the university faculty are investigating the processes of research that the English and Social Studies teachers are working with; thus research is occurring in two domains. How preservice teacher candidates can play a role in such initiatives remains an interest for us.

Preparing Teachers to do Research: Skills and Attitudes for Practitioners

There are continuing discussions in the literature related to which skills and attitudes are necessary for practitioners doing research and how a master's program focused on preparing teachers might best incorporate experiences that utilize those skills and attitudes (Radencich, 1998, Gore and Zeichner, 1991, Ross, 1987). This issue has a programmatic and course syllabus application, but it also raises questions about which skills might also be useful in learning the pedagogy that is inherent in a strong teacher education program. We wondered whether student teachers see the connection between research skills and teaching skills that they are learning as they proceed through coursework, field experiences and the master's project research. We also wondered whether the master's students perceived the learning of these discrete research methods as beneficial. We have begun to experiment with the redesign of a course called Data Display and Interpretation that, as one student phrased it 'pushed everybody off the edge.'

The methods we are currently experimenting with in the Data Display course for implementing the master's project research include five specific methods for data collection and some guided approaches to collaborative analysis and interpretation. The five methods: field notes/observation, student work/artifact collection, survey, interview, and focus groups are introduced and experienced in classes. Students then must utilize two forms of data collection for their respective projects and bring raw data to their Research Groups for coding and preliminary interpretation. The course then ends with a Poster Session in which students respond to each other's visual display of the work in

progress. The notion of 'display' has in itself prompted dialogue and debate concerning how the visual images and organization of data might be used to share master's project research with field site mentors, administrators, and students.

Students are finding some of the methods more useful than others. They have also suggested the power of certain data collection strategies to inform other aspects of the program. Field experiences involving early observation in the practicum, for example, could be better served if students were taught to collect field notes and actively observe early in the program as researchers. Rachel: *One of the things I found really difficult as an observer is that I didn't really know how to observe. I just didn't do it, and I think that if I had a mission – like a research question...I would do better.* Amy: *If we could have had that one exercise – watching a video of a teacher teaching (and taking field notes) – at our initial orientation, then when I wrote my initial plan, it would have been more focused and meaningful. Just ask, 'What do you see?' I think that would have been effective not just for teacher education; it's just effective for being an active observer. How do you observe?*

Master's students also found that the use of focus groups with students was a new tool to find out how students perceived their learning experiences and what teachers were thinking. Randy: *This was something I was completely naïve about at the beginning of the process...I had no idea how I would go about collecting the data. I just had big ideas about what I was interested in. I never would have considered a focus group for the kind of research I was doing about school culture – as with so many of the other kinds of methods we talked about. At the beginning, my outlook was much more limited. As I went through the classes, I got more exposure to the different kinds of research.*

Randy, who is currently a teacher and is working toward his administration degree, experienced the research methods as structures to establish future dialogue with his staff as a principal. Randy: *The forum for establishing the effective communication that is productive for the school, creating that time, creating the explicit format for how that discussion takes place is what's really missing.*

The preservice teachers had a difficult time imagining the application of formal research procedures as first or even second year teachers. They invoke the pressures of time and schedules regularly, just as experienced teachers do when they embark upon classroom-based research. Still, they are beginning to see the processes they are engaged in as a more systematic extension of truly reflective, analytical approaches toward the practice of teaching. They had strong feelings about the integration of the research methods into other coursework that made us think about how research is, in our context, a part of all of our teaching and is infused into course and field work that students do. They also helped us clarify how the master's project, as a vehicle for inquiry, could also be an ongoing initiative that informs and is informed by their field experiences and university classes. Awareness of the master's project as something not outside the normal quarterly course load but as a structural and intellectual piece of preservice teacher learning is a goal.

The problem of transfer: Increasing the likelihood that graduates will sustain their commitment to rigorous inquiry

In the face of multiple constraints on teacher research, what can teacher education programs do to encourage their students to continue with structured inquiry after graduation? Our work to date suggests that we must not only provide training in the tools

of inquiry, but also: 1) foster a sturdy belief in the pragmatic value of practitioner research as a means of improving individual and collective practice, 2) help students develop a sense of identity and competence as researchers, and 3) acknowledge the constraints to teacher research and attempt to provide preservice teachers with ways to think about overcoming those constraints. This is a tall order when placed alongside the other components of teacher training.

Within our own university and program context we believe and urge students to believe that it is important to conduct research on one's own practice and to understand that research as necessary for good teaching and for positive change within educational environments. Our conceptual framework for teacher education states:... *we believe that teachers need to learn about the complexities of practice through reflection on authentic experience, including the artifacts of their practice... we encourage teachers to continue reflecting on their own processes of learning and development as they engage in professional work* (SESP Teacher education conceptual framework, 1999, pp. 5,7).

We know, however, that graduates of teacher education programs rarely move into organizational contexts that support structured inquiry as an ongoing component of professional life. Lampert describes the problematic "intellectual segregation" of teachers, the rarity of rigorous inquiry by practitioners in schools and the lack of a "professional language for describing and analyzing practice" (2000, p. 90). As she points out, without rigorous inquiry by practitioners, there is no shared language of practice owned by teachers and grounded in genuine inquiry. Without a shared professional culture and language around issues of teaching and learning, individual

teachers are likely to operate from a "personal version of teaching truth" (Lortie, in Lampert, 2000, p. 90).

Further, the prospect of engaging in teacher research as an integral part of their professional life can be very daunting to preservice teachers. Joe: *I think that the reason why more teachers aren't like actively engaged in attacking a problem consistently, which is what we're trying to learn how to do, is that it takes more time. It's taking me a lot of time to just gather all this information...if I had a full teaching load next quarter, it wouldn't get done.* In the face of multiple constraints, he noted, *it's easy to sit down and anecdotalize and swap little stories and come to easy solutions.* The prospect of engaging in teacher research as first or second year teachers is viewed as even more problematic. Rachel: *There is a first year teacher in the English Department and she's so buried under that I can't even imagine her contemplating action research...* Are teachers likely to return to inquiry if they do not use and refine their fledgling inquiry skills during their first years of teaching, a period when understanding their developing practice may be uppermost in their minds?

Fostering a sustaining belief in the value of teacher research

James Baumann (1996) describes the benefits of teacher research: *...by struggling with ways to integrate inquiry into their work, teacher researchers come to know themselves better as teachers and persons, learn to understand their students and families in ways heretofore unknown, increase their professional esteem and credibility, share their learning with colleagues locally and beyond, and most importantly, help their students develop intellectually, socially, and emotionally.* Graduate students do not automatically understand these benefits, however, despite exposure to written research

and researchers. They need to develop a sense of the relevance and importance of inquiry as a steady, everyday means of improving practice. The moment when they begin to "see" the benefits of inquiry can be powerful. Karen: *I understood the principles of action research, mostly through trial and error, but never knew it was an actual method for making change and solving problems.*

Providing models of effective teacher researchers is important in this regard. Indeed, Lampert notes that "as scholars who teach make their teaching experiments available for common investigation, they develop a shared text for analysis by others and a language of conceptual frames based in practice" (Lampert, 2000, p. 91). We have approached this issue by attempting to 1) provide access to university faculty who examine their own work in this dual role in K-12 schools, 2) include talented practitioners in both the preservice students' programs and the intellectual discourse of the teacher education faculty, and 3) expose preservice educators to practitioner research as it is practiced within specific schools and districts.

To ensure access to positive models and to leverage the greatest benefit from them requires consistent and ongoing conversation among university faculty, adjunct practitioner instructors, and school personnel. Time and the geography of work place very real constraints upon these conversations. Nevertheless, we can see the positive results of consciously causing these worlds to overlap. Kris: *...one of the greatest experiences was to have Dick S., who is my advisor, come and spend a day with my mentor. And it was really neat, because I still taught for most of the day and he came in and spent the day with him and I met them after school and we got the chance to talk about what I was doing. When I joined them, it was so wonderful to be able to continue,*

to engage in a conversation with both of them and talk about the kinds of things I talk about here with Dick, and then talk about the kinds of things I talk about with my mentor at the high school...it just kind of connects the conversation...to connect ideas to reality, to jump back and forth, to have that two-hour conversation with these two people - it was just great.

Students may , however, be quite vulnerable as they work to bridge these worlds and do useful research. Anderson and Herr suggest that "insider researchers have unique opportunities to document the hidden transcripts within social institutions, illuminating new forms of micropolitics and an institutional dimension only partially accessible to researchers." (Anderson and Herr, 1999, p. 18) Graduate preservice teachers are in a particularly ambiguous position in this regard. On the one hand, they often have access to insider knowledge in a special way because they are usually an apparently uncritical and interested audience that will conveniently disappear after a certain number of weeks. Consequently, they readily absorb the dominant culture within their field site, often including frank expressions of teacher's attitudes, both positive and negative, toward inquiry and the change it might engender.

Further, they are often conscious of being caught between the role of insider and outsider. Do their findings need to be useful to their field sites? If so, should they share their research findings? If they do, will they be caught in uncomfortable political crossfire? Will they compromise people who have trusted them? If not, does avoiding these pitfalls imply that teacher research is somehow a private and isolated process?

Amy: *Today was my last student teaching day and they're all like worried. They're like 'When are we going to get to see your paper?' And the department chair says, 'Well, can*

you just tell me real quick, what are you thinking? What have you noticed?' I mean I think they're just all...not that they think I'm going to say anything so profound, but just to see the observations. While this type of response often reflects an uncritical and genuine engagement with shared questions, we worry about how to help students negotiate the politics of being semi-insiders. If their hands are burned as they make their first attempts at research, they are unlikely to develop a love of the inquiry process.

Helping students develop a sense of identity and competence as researchers

A second problem for transference has to do with preservice teachers developing a working identity as researchers. Students often have no idea as they begin the master's program of what constitutes valid teacher research and how they might learn to do it. We see this problem, for example, as students come to us with a question they care deeply about and say, "Is this a real research question? If I pursue it, will it be real research?" Since the question of what constitutes valid teacher research is currently the center of considerable debate [see, for example, Lampert, 2000, Anderson and Herr, 1999, Jungck, in Burnaford, Fischer and Hobson, 1996, Cochran-Smith and Lytle, 1990], it is not always easy to give them clear answers. Eisner notes that "the desire to find or create forms of research that are more compatible with ongoing educational practice" has been part of the motivation for the research community to struggle with questions of what constitutes valid research practice (Eisner, 1999, p. 20). We sometimes feel some tension as students express deeply felt questions about teaching and learning in relation to their own developing practice, yet receive differing responses to their questions and methodological approaches from different university faculty. On the other hand, they

achieve a sense of agency as they move from amorphous project plans to solid ideas of what research might look like.

Our instinct is that students are more likely to become long-term researchers if we give them some tools and then encourage them to roll up their sleeves and enter the race, occasionally falling and scraping their elbows. Tricia: *I was totally clueless on how to begin...and that's why I put it off and put it off, because I didn't have a clue...the Data Display class took us step by step...this is how you do it...And now that I know how to do it, I'm excited about it and I can go forward.* Lampert, in a discussion of the implications for research practice of teachers as researchers, asks where we draw the line between research and thoughtful practice (2000, p. 89). Students are conscious of trying to negotiate this border as well. Baumann (1996) argues the overlap between research and thoughtful practice as he describes the ways in which teaching demands forced him to creatively reshuffle his research methods and the ways in which activities he engaged in for research purposes had an immediate and positive effect on his teaching. We try to expose students to a variety of research methods, encourage them to experiment, to learn by doing (and sometimes by failing), and to be comfortable judging their questions and methodology by the utility of the inquiry process for their own professional development.

We believe that for students to believe in the transferability of their inquiry skills to the everyday life of teaching, they must first come to understand themselves as competent researchers who can effect change. We see evidence of this fledgling identity when a school administration candidate states: *my vision...my hope is that I can create a structure where this type of meaningful discussion can take place as opposed to ...I feel like a lot of the staff development in my building takes place around the ordering of*

school supplies. That's what we did this week... I have a hope that I can create time within a day where there is a real structure for issues that are taking place and conversation - whether it's lunch groups or - I have to think about this...my hope is to get beyond what I view to be issues that are more shortsighted and create structures in the day.

Acknowledging constraints to teacher research and providing ways to think about overcoming those constraints

We are realizing that it is important to allow students chances to see and talk about the barriers to practitioner research and collaborative inquiry in schools, so that they have a realistic understanding of the challenges to inquiry and hopefully develop ways to cope with them. Students definitely see institutional barriers to change-oriented research. They note, for example, the tendency of institutional forces to co-opt practitioner research (Anderson and Herr, 1999, p. 17) and/or to make it a less attractive activity. Amy: *It's almost when it* [teacher research] *becomes instituted...this is how I see it in my environment...that once it's become instituted, it becomes perverted. It's no longer this genuine interest - it's now been sort of legislated 'this is what we have to do now'...it loses that passion or that just personal motivation.*

Kris further articulated the problems of "ownership" and institutionalizing research: *...when it's voluntary and the teacher takes ownership of the question and the interest in the inquiry that's when it really becomes effective. Today, I got a new little brochure on the new state of Illinois requirements for teacher certification in the mail. The fact that it's going to involve action research for professional development. It really made me think. Our faculty association in general is very nervous right now because*

they're afraid of the requirements placed on them for teacher certification. When you say to teachers, 'You have to do some kind of professional development; you must inquire into some question.' At least the sense I'm getting now from my own faculty, (is that) the wall is going up. I think that it is going to make teachers not want to do research or inquiry...it's a kind of punishment of sorts.

Rachel supplies an alternative experience when a school explicitly supports, but does not direct action research: *At Highland Park, the Action Research Lab is entirely voluntary. ...And so the people who are in it are real gung-ho and love the fact that it's so supported - get to travel twice a year once to present - or once just to attend - so they're really pro ARL.* Facilitating discussions around these issues can be an important way for students to hear about varying models and experiences. Joyce: *...not having been anywhere else - I thought that everyone did it like this, every district does it the same way, how in the world could anyone do it differently...but then, seeing what else is out there...boy there is the whole spectrum about how people do things.*

Students also are aware of the time constraints faced by teachers and the impact of those constraints on mentoring first year teachers who might conduct teacher research. They are willing to tentatively accept the notion that "educators who learn in their classrooms, who conduct research and write about their observations, become the best possible teachers" (Patterson, Santa, Short, and Smith, 1993 in Radencich, 1998, p. 266). We may also help them interact with exemplary practitioners who manage this process. But, as they are exposed to the tensions, time management problems, and politics of schools, we see them begin to regard those exemplary practitioners as truly exceptional,

as they begin to doubt their own ability to conduct research and teach, especially in the first years of practice.

Kris: *Unfortunately, we have a mentorship program in my high school, but the structured time isn't allocated, where experienced teachers and new teachers can actually engage in discussion...So for those meaningful discussions and connections to be made, thinking about the allocation of time, that's a major issue. How do you do that? Then it becomes a financial issue. I think you really need to give the experienced teachers a lesser teaching load.*

Joe mirrors Baumann's (1996) reflections on teacher time constraints in relation to research: *There are the long term and the short-term effects. I think there are reflective teachers - they are the ones who will resist this process [formal inquiry] because they feel that what's more valuable is to sit down with a kid and explain the process of this paper, rather than look into [their] own teaching....I would have a hard time arguing with someone now who said, 'Yeah, I could do individual research right now and try to figure out some piece of my long term development as a teacher, or I could spend the next two hours with these four kids who don't get it and work with them.' That's a difficult thing to balance, and I can't fault someone who wants to spend the time with those kids, because, isn't that what we're there for? And I think that we do serve those kids in the long run through action research because you learn to be a better teacher, but right now, you have to make that decision.*

One way we might help them deal with the time issue, aside from emphasizing the benefits of teacher research, is to help them effectively manage the research process they pursue as master's students. Just as teachers have many time demands that threaten

their capacity to do research, most preservice teachers are overwhelmed with the process of learning teaching as a craft and developing a new identity as a teacher while they struggle to complete their master's project. We are learning that we can help by making the research process feel like an integral component of their experience as graduate students.

Collaborative research groups, periodically meeting with faculty, are one way of making the process more interactive and supportive. One student responded to her experiences in a research group meeting, designed to provide feedback to the master's project proposal: *We need the opportunity to talk through things and the chance to question and respond to our feedback. We can anticipate your initial feedback but it is your response to our attempt to think through the feedback that is what is truly useful. Forgive me if you already understand - I knew that my topic was too big, I knew I needed to check out more sources, I haven't done everything I could but by discussing where I was you could take a step beyond initial feedback and help me shape my project into something I can handle instead of* [providing] *a few written suggestions... I also very much benefited from the discussion with others in our group. I like having a tight small focus group we can suffer through things together. I am learning so much from working through together...This way we all feed off each other's progress. It is so nice.*

Conclusion and Future Directions

Our self-study efforts have helped us begin to answer our questions, and not surprisingly, have led to new ones. Having engaged in a form of practitioner research ourselves, we can sympathize with the notion that "rigorous practitioner research, rather than simply solving a problem, forces the researcher to reframe the problem in a more

complex way, often leading to a new set of questions/problems" (Anderson and Herr, 1999, p. 16). While our inquiry has helped us to understand the meaning of the master's project process for our students, it has also led us to deeper questions about the methods possible for teachers doing research and our role in preparing them for those tasks.

Further, the inquiry process often felt messy and ambiguous to us. It yielded answers that challenged our own practice in ways we must negotiate not only with ourselves but across an organization and, of course, it led to larger questions. Experiencing these byproducts of inquiry ourselves as we were looking at student inquiry helped us understand in a very genuine way the issues students might have about incorporating research into the regular routines of teaching and learning.

We wondered how preservice teachers in our program understand the nature of research as they try to shape a master's project. We were also curious about where their research questions come from and who "owns" them. This led us to questions about how university and school communities affect preservice teachers' developing understanding of themselves as researchers and whether they experience the university and school communities as overlapping or separate. If they experience them as separate will they be likely to continue the divide between university research and teacher research when they graduate?

We learned that from the very start the nature of research is a matter of negotiation for our students. Anderson and Herr suggest that schools of education that value practitioner research are likely to be caught "between a university culture that values basic research and theoretical knowledge and a professional culture of schooling that values applied research and narrative knowledge" (Anderson and Herr, 1999, p. 12).

We have found that this issue is even more complex than that statement would suggest. It may be an over simplification to assume, for example, that the professional culture of schooling necessarily values applied research and narrative knowledge over basic research. Some school cultures, although they clearly view teacher research as instrumental, operate out of research models that derive from positivist approaches consistent with basic research and knowledge production. Amy: *Their* [teachers, administrators at the field site] *view of research is not what we talk about here...this action-based research...their view is more the scientific, collection of data, something different than social research.* The teacher education program cannot be easily categorized either. While it may feel the tension between university and school cultures in regard to practitioner research, the issue may be more about managing different models and paradigms than about choosing among them or developing a new model.

Students find themselves at the sometimes uneasy intersection of university, teacher education program, and field site, just as they are trying to reflect inward and understand their own concerns and questions. Further, as they begin, they negotiate from naïve understandings of what constitutes research and who should "own" the questions and results. This makes them vulnerable to conflicting notions about what constitutes good teacher research. Our own inquiry suggests that we might help students negotiate these issues by working toward a clearer idea of what we believe constitutes valid teacher research within our own teacher education community, and by working to bridge the intersecting worlds of university, the teacher education program, and field site.

As we examine the issue of research training within teacher education, we find ourselves squarely in the middle of a larger dialogue about the nature and implications of

teacher research. This discussion explores the constraints on teacher research and the tension between different models of research in teacher research (Baumann, 1996, Wilson, 1995, Wong, 1995a, 1995b). Recent literature also suggests the possibility that a new model of research, informed by the specific opportunities and constraints of teacher research, may be emerging (Lampert, 2000, Anderson and Herr, 1999).

In this regard, we have been engaged in a four year effort to develop a school/university consortium explicitly designed to bring together preservice and experienced teachers, students, school administrators and university faculty for professional development and joint research across urban and suburban contexts. This effort has recently culminated in a grant from the Joyce Foundation that will support and expand these professional development and shared research initiatives. We would like to explore the possibilities for collaboration and study the research relationships that emerge across the institutional boundaries represented within the consortium.

As we talked with students about the master's project process, they and we began to see promising linkages between teacher preparation methods and fieldwork and the inquiry strand represented by the master's project process. They reinforced our instincts about integrating more formal instruction in research methods with the regular work of methods courses and fieldwork. As Amy states: *Maybe I was suggesting that those ideas* [research methods] *be introduced earlier on, so the evolution could begin earlier....because I'm at a school now and have access to students and faculty at that school, it would have been really helpful to have access to the knowledge. What is a focus group? What is a survey? Those things earlier in my forming a relationship with that school.* Marian talks of integrating instruction in teaching and instruction in research:

...had I been thinking about what could I have been looking at that would have been useful to me - during my observation so that I could develop the question and get that going - so that when I started my student teaching, I could actually use my site. Like I knew that was supposed to be a possibility, but I had no idea how to go about it.

In the existing curriculum we attempt to explore the intersection of coursework and master's project and to provide students with opportunities to synthesize the roles of teacher and researcher in a capstone course called "Reflecting upon Educational Problems." In this course, taken at the end of the graduate program, students lead structured dialogue in small discussion groups around texts that informed their master's projects. In this collaborative setting, they have the opportunity to explore where their research questions have taken them and how the results might affect their professional lives. This process routinely results in new insights and a greater appreciation of the utility of inquiry. Would this be even more effective if we were able to intertwine research and practice more consciously throughout the curriculum and fieldwork?

We would like to study the integration of instruction in research and teaching skills across the curricula of teacher education programs within research universities as a possible means of enhancing the likelihood that preservice teachers will develop a stronger understanding of the value of inquiry integrated with teaching. What are the possibilities of integrating inquiry as a lens throughout coursework in a teacher preparation program - determining how teacher research can be seen, not as a discrete course or courses, but as a regular part of the process of learning what it means to be a teacher?

In our teacher education program, we press inquiry upon them while they are immersed in a process of teacher preparation that makes heavy demands upon their intelligence, creativity, character, and stamina. We struggle with how to help them bring coherence and meaning to the process and with how to become good teachers and researchers. The dialogue we have found along the way, in class, in focus groups, in research groups, through e-mail, and in the hallway, has inspired us and given us pause. We find new hope in the process of collaboration even as it may be uneven, tense, and ambiguous in outcome.

In this context, we might ask ourselves the same questions about our students' work that Magdalene Lampert asks. "…how will their work be regarded in relation to the larger picture of 'knowledge production'? Should practitioners' research meet the same standards of method as scholarly research? If they invent their own methods, will these methods make their way into academic discourse? Should they?" (Lampert, 2000, p. 91). We see these issues as integral to our ongoing investigation into preservice and inservice teacher research communities and as having powerful implications for the master's project at our university.

References

Anderson, G.L. & Herr, K. (1999). The new paradigm wars: Is there room for rigorous practitioner knowledge in schools and universities? Educational Researcher, 28(5), 12-21, 40.

Baumann, J. F. (1996). Conflict or compatibility in classroom inquiry? One teacher's struggle to balance teaching and research. Educational Researcher, 25(7), 29-36.

Burbank, M. D. (1999). Empowering urban teacher research communities. Paper Presentation at the Annual Conference of the Association of Teacher Educators. Chicago, IL, February.

Burbules, N.C. & Rice, S. (1991). Dialogue across differences: Continuing the conversation. Harvard Educational Review, 61(4), 393-416.

Catelli, L.A. (1995). Action research and collaborative inquiry in a school-university partnership. Action in Teacher Education, 16(4), 25-38.

Cochran-Smith, M., Garfield, E., & Greenberger, R. (1992). Student teachers and their teacher: Talking our way into new understandings. In N.A. Branscombe, D. Goswami, & J. Schwartz, (Eds.) Student teaching, teachers learning. Portsmouth, NH: Boynton Cook/Heinemann, 274-292.

Cochran-Smith, M. & Lytle, S. (1990). Research on teaching and teacher research: The issues that divide. Educational Researcher, 19(2), 2-11.

Coulter, D. (1999). The epic and the novel: Dialogism and teacher research. Educational Researcher, 28(3), 4-13.

Eisner, E. (1999). Rejoinder: A response to Tom Knapp. Educational Researcher, 28 (1), 19-20.

Freedman, S.W., Simons, E.R., Kalnin, J.S., Casareno, A. (1999). The M-Class Teams. Inside city schools: Investigating literacy in multicultural classrooms. New York: Teachers College Press.

Goodman, J. (1986). Making early field experience meaningful: A critical approach. Journal of Education for Teaching, 12(2), 109-125.

Gore, J. & Zeichner, K. (1991). Action research and reflective teaching in preservice teacher education: A case study from the United States. Teaching and Teacher Education, 7(2), 119-136.

Korthagen, F.A.J. & Kessels, J.P.A.M. (1999). Linking theory and practice: Changing the pedagogy of teacher education. Educational Researcher, 29(4), 4-17.

Jungck, S. (1996). Teacher inquiry in the traditions of social science. In Burnaford, G., Fischer, J., Hobson, D. Teachers doing research: Practical possibilities.. Mahwah, NJ: Lawrence Erlbaum Associates, 165-179.

Lampert, M. (2000). Knowing teaching: The intersection of research on teaching and qualitative research. Harvard Educational Review 70(1), 86-99.

Northwestern University, School of Education and Social Policy. (1999). Teacher education conceptual framework, A report to the Illinois State Board of Education.

Oja, S.N. & Pine, G.J. (1987). Collaborative action research: Teachers' stages of development in school contexts. Peabody Journal of Education, 64(2), 96-115.

Poetter, T., Badiali, B. & Hammond, D.J. (1999). Teacher inquiry in a partner

school. Paper presentation at the Association of Teacher Educators Annual Meeting. Chicago, IL: February.

Radencich, M.C. (1998). Planning a teacher research course: Challenges and quandaries. Educational Forum, 62(3), 265-272.

Ross, D.D. (1987). Action research for preservice teachers: A description of why and how. Peabody Journal of Education, 64(3), 131-150.

Stringer, E.T. (1999). Action research., Second Edition. Thousand Oaks, CA: Sage.

Threatt, S., Buchanan, J., Morgan, B., Sugarman, J., Swenson, J., Teel, K., Streib, L., & Tomlinson, J. (1994). Teachers' voices in the conversation about teacher research. In S. Hollingsworth & H. Sockett (Eds.), Ninety-third yearbook of the National Society for the Study of Education, Chicago, IL: University of Chicago Press, 222-244.

Wilson, S. M.(1995). Not tension but intention: A response to Wong's analysis of the researcher/teacher. Educational Researcher, 24(8), 19-22.

Wong, E. D. (1995a). Challenges confronting the researcher/teacher: Conflicts of purpose and conduct. Educational Researcher, 24(3), 22-28.

Wong, E.D. (1995b). Challenges confronting the researcher/teacher: A rejoinder to Wilson. Educational Researcher, 24(8), 22-23.

Zeichner, K.M. & Tabachnick, B.R. (1981). Are the effects of university teacher education "washed out" by school experience? Journal of Teacher Education, 32(2), 7-11.

Zeichner, K.M. (1995). Beyond the divide of teacher research and academic research. Teachers and Teaching: Theory and Practice, 1(2), 153-172.

Zeichner, K. (1999). The new scholarship in teacher education. Educational Researcher, 28(9), 4-15.